

*tilis*, though darker in color, and presenting rather conspicuous white bands at the base of the antennæ.

Taken at Charlotte, N. C., August, 1917.

### **Culex floridanus** Dyar & Knab.

The northernmost record of this species heretofore is Georgia. A few larvæ were found in a temporary rain pool along a newly made street. The larvæ were rather scarce as only one was found at the first visit to this locality and four more a month later. Their scarcity may have been in part due to the presence of predacious larvæ in the same pool. The larvæ were greyish in color and were rather small. They resembled, somewhat, *Psorophora discolor*, with which they were found, and had the same habit of lying inverted at the bottom of the pool. Two specimens were bred to maturity.

Taken at Charlotte, N. C., July and August, 1915.

## NEW AMERICAN MOSQUITOES

(*Diptera, Culicidæ*)

By HARRISON G. DYAR

### **Wyeomyia aphobema**, new species.

Male. Proboscis long, downcurved at the apical third and swollen at the tip, clothed with black scales; palpi about one-eighth the length of the proboscis, black; clypeus and tori nude; antennæ with the last two joints elongate and thickened, with short hairs, the others white at their tips and with basal whorls of long cilia; eyes broadly contiguous at the vertex, but separated in front by a narrow wedge of integument; occiput clothed with black scales with a bluish luster, a white margin on the sides below. Prothoracic lobes collar-like, clothed with dark shining blue scales, showing a violet reflection. Mesonotum with large dark brown scales. Postnotum nude. Abdomen blackish brown above, white below, the colors separated on the sides in a nearly straight line. Legs long and slender, the front femora as long as the middle ones, hind femora shorter; hind tibiæ slightly swollen at tip; coloration bronzy

blackish; mid tarsi silvery white below on most of the second and all of the third to fifth joints; front tarsi with a whitish reflection beneath; hind tarsi dark. Wings faintly smoky, the scales dark, rather broadly ligulate outwardly.

Genitalia: Side pieces broadly conical, not longer than wide, each bearing near the base a tuft of long, thick, pointed spines, which extend beyond the end of the side-piece; clasp-filament long, slender, simple, being only a little swollen outwardly and with a few scattered setæ; three short terminal spines. Basal structures reduced, invisible. Basal appendages with foliate plates.

Type, male, No. 21915, U. S. Nat. Mus.; Lawa River, Surinam, the larvæ found in Bromeliaceæ, March, 1917 (Mrs. J. Bonne-Wepster).

This species is provisionally placed in *Wycomyia*, probably requiring a new genus. It would fall in *Sabethinus* by the monograph tables, but seems out of place there. The peculiar genitalia, totally unlike those of any other Sabethid known to me, suggest those of *Uranotaenia*.

### **Culex (Culex) surinamensis**, new species.

Proboscis showing a broad pale band below in the female, white-ringed in the male; occiput with brown scales, the eyes margined with white; mesonotum with narrow curved dark golden brown scales; abdomen black, with broad basal segmental white bands in both sexes; venter with black apical bands. Legs black, the femora pale below, the tibiæ white-lined on the under side nearly to apex; tarsi with moderate white rings at both ends of the joints, the last joint like the others.

Types, No. 21912, U. S. Nat. Mus.; Marowyne and Lawa Rivers, Surinam, bred from larvæ in a rock pool and in a water barrel, March, 1917 (Mrs. J. Bonne-Wepster).

The adult has the coloration of *coronator* D. & K. and *ousqua* Dyar. The definition is by the male genitalia, which are as in *coronator*, except that the outer tooth of the second uncal plate is small and rounded, like a little thumb, instead of

long, slender and sharply angled, as it is in both *coronator* and *ousqua*.

The larva, also, differs markedly from that of *coronator*, having a comparatively stout and uniform air-tube without trace of the crown of subapical spines.

**Culex (Culex) usquatus**, new species.

Proboscis showing a broad pale band below in the female, white ringed in the male; occiput with brown scales, the eyes margined with white; mesonotum with narrow curved dark golden brown scales; abdomen black, with broad basal segmental white bands in both sexes; venter with traces of blackish apical bands. Legs black, the femora pale below, the tibiæ white-lined on the under side; tarsi with small white rings at both ends of the joints, the last joint with the tip black.

Types, No. 21913, U. S. Nat. Mus.; two males and three females, "many larvæ found in old boats, in a fallen, nearly burned tree, in very dirty puddles, in water barrels, sometimes *Lutsia allostigma* preying upon them. Only once found far from human habitations; in all other cases the breeding-places were near houses. February, 1917. Marowyne and Lawa Rivers. Also, February, 1918. Surinam River" (Mrs. J. Bonne-Wepster).

The adult has the coloration of *coronator* D. & K., *ousqua* Dyar and *surinamensis*, described above. The definition is by the male genitalia, which have the upper tooth of the second uncal plate a small straight blade, pointed, but not bent; the lobe of the side-piece is scarcely divided, having outwardly a group of five spines, inwardly the three usual rods, but supplemented basally by a stout spine and a seta; the tip of the side-piece bears a dense group of about eight stout setæ, situated upon a rounded prominence.

The larva has a long slender air-tube with two or three spines subapically, much as in *ousqua*.

**Culex (Melanoconion) zeteci**, new species.

Male. Palpi longer than the proboscis, the last two joints hairy; legs with the femora whitish below and with distinct

knee-spots, the tips of the tibiæ also whitish; tarsi black, unbanded. Integument of the thorax brown, of the abdomen gray, with the tips of the segments blackish, distinctly lighter than in *Culex educator* and *C. hesitator*. The specimen is of about the size of these species or slightly larger, comparable with the smallest males of *C. quinquefasciatus*. The specimen is completely denuded of scales.

Genitalia. Clasp filament long, narrowed outwardly, sinuate on the apical third but not enlarged at tip (possibly it is elliptically enlarged at tip with a strong central groove, the part below the groove membranous. The mount is not very clear. If this is the case, the species may be placed in *Charoporpa*). Side-pieces three times as long as wide, excavated on the basal two-thirds within; subapical process divided, the outer limb bearing an elliptical leaf bent to one side, closely accompanied by about five fine setæ, not as long as the leaf; inner limb stouter than the outer, with a large flattened filament with spoon-shaped tip and a second filament inserted on the basal third of the limb. Harpes comb-shaped with about eight strong teeth. Unci divided, the plates all flat, none hook-like; first plate narrowly triangular, dark brown; second plate elongate, reaching the middle of the side-piece, triangular, membranous, with a sharp pointed brown tip; third plate long, membranous, columnar, the tip curved over and rounded; lateral plates double, a large triangular dark brown outer one covering a narrowly triangular, roundedly pointed membranous inner one.

Type, male, No. 21778, U. S. Nat. Mus.; Gatun, Canal Zone, Panama, January 16, 1913 (J. Zetek).

***Culex (Melanoconion) dumni*, new species.**

Head with a broad area of narrow curved scales behind, largely pale and mixed with upright forked black ones; an area of flat white scales on the sides, running up along the margins of the eyes, but not reaching vertex. Mesonotum pale brown, longitudinally lined with darker brown, clothed with narrow curved bronzy brown scales and long black bristles. Abdomen black dorsally in the female with lateral whitish

basal segmental spots; showing white basal bands in the male after the second segment; venter whitish, the segments apically banded with black. Legs bronzy black, knee-spots and tips of tibiæ narrowly whitish; femora pale beneath. Wing scales brown, ovate, spinose along costal edge.

Male genitalia. Clasp filament simple, constricted at basal third, the spine subterminal, widened and appendiculate; side-piece about twice as long as wide, conical, excavate at the base; lobe divided, a basal portion nearly sessile consisting of four spines, one stouter and on a more elevated pedicel; outer division pedicellate, of four short spines and a large leaf-like appendage. Harpes long-stemmed, comb-shaped, with 8 or 9 teeth. Unci with the basal plate slender and recurved into a pair of hooks; two pairs of slender upright plates, the central one denticulate; sublateral plate very large, bifid, the inner arm forming a large horn-like plate, the outer one finger-shaped and sinuate.

Types, No. 21714, U. S. Nat. Mus.; male and female, Mandingo River, Panama, bred from larvæ associated with *Pistia* (L. H. Dunn).

**Culex (Choeroporpa) tecmarsis**, new species.

Head with a narrow area of small scales in the nape, not reaching the vertex, the remaining scales broad and flat, black and white, the white predominating. Mesonotum pale brown, with darker longitudinal linings, clothed with dense narrow curved bronzy brown scales and black bristles, the general effect dark brown. Abdomen black dorsally in both sexes; lateral spots faint, pale, alike in both sexes; venter pale, very broadly banded with black at the apices of the segments. Integument of pleura and leg-bases dark brown; legs black, the femora paler beneath, but still of a brown tint. Wing scales dark brown, ovate, only the outstanding ones on base of third vein ligulate.

Male genitalia. Clasp filament narrowly snout-shaped, the tip distinct and upturned, the spine widened and appendiculate; eye-shaped insertion of the seta proportionately large; dorsal aspect finely pilose. Side-pieces twice as long as wide,

swollen, tending to be spherical, excavate at base; lobe divided, the inner portion with two long distorted rods with spoon-shaped tips, one inserted beyond the other; outer portion bearing four filamentous curved rods and a long-stemmed transversely elliptical leaf-shaped appendage. Harpes comb-shaped with nine teeth. Unci with the first plate narrowed and hook-like but not very slender nor long; second plate stout, concave, bifid and widened at tip without accompanying hooks; sublateral plate broad, with a finger-shaped process on the outer angle. Basal lobes long, reaching to middle of side-piece, the setæ forming a dense tuft at tip.

Types, No. 21715, U. S. Nat. Mus.; two males and a female, Trinidad River, Panama, males, June 9, 1912, female, May 5, 1911, taken at light (A. Busck).

**Culex (Helcoporpa, new subgenus) menytes**, new species.

Head with narrow curved whitish scales over the nape and vertex, broad white ones low on the sides; many erect black forked scales. Mesonotum brown, longitudinally lined with darker brown, clothed with narrow curved bronzy brown scales and brown bristles. Abdomen entirely black, bronzy above, dull on the venter. Legs bronzy brown, the coxæ and the femora below pale. Wing scales dark brown, ovate, spinose along costal edge.

Male genitalia. Clasp filament attenuated at outer third, the tip obliquely elliptically excavate, hollowed, a curved spine at the tip; dorsal margin minutely hirsute. Side-piece swollen, about twice as long as wide, excavate at base; lobe divided, the inner part with one large sinuate filamentous appendage and a small rod; the other with an elliptical flattened appendage with incised hooked tip, a fan-shaped leaf obliquely terminated and two small setæ. Harpes comb-shaped, the tips recurved in the shape of a hook, about 12 teeth, somewhat spreading and not closely set. Basal plate of the unci trigonate, not hooked; second plate short, ill-defined; third plate with laterally projecting tooth; sublateral plate not strongly developed. Basal lobes conical, large but not long.

Type, No. 21716, U. S. Nat. Mus.; male, Trinidad River, Panama, March 20, 1912 (A. Busck).

The new subgenus is founded on the male genitalia, which differ from *Choeroporpa* in the elliptical sucker-like termination of the clasp filament. The last plate of the unci ends in a sharp tooth, recalling *Microculcx*; but the point is laterally directed, not retrose.

**Culex (Mochlostyrax) alogistus**, new species.

Bronzy black. Occiput clothed with flat broad white scales, only a few black ones present; mesonotum dark brown, the scales small, sparse and bronzy brown; abdomen black above, bronzy shaded, with lateral, basal segmental white spots in both sexes; legs black, the femora white below; wing-scales black, those on the second to fourth veins ovate. A small, dark species with white head.

Types, No. 21914, U. S. Nat. Mus., four males and one female; bred from larvæ in temporary pools, lying on their backs on the bottom, Surinam (Mrs. J. Bonne-Wepster).

The male genitalia are distinctive; characters in general of *hesitator* D. & K., but the basal lobes of the penultimate segment enormously developed, bearing long hairs that reach to the tips of the side-pieces.

The larvæ have typical *Mochlostyrax* structure.

**Psorophora (Psorophora) ctites**, new species.

Entirely as in *P. ciliata* Fab., except for the absence of the raised scales on the legs, palpi and base of proboscis. Head with median bare space, the scales flat and white; bristles yellowish; some erect slender black scales behind. Mesonotum with a median line of golden yellow scales, subdorsal area nude; lateral areas with flat white scales. Abdomen wholly gray-scaled posteriorly, with lateral areas of blackish scales in front; venter with sparse gray scales. Legs black-scaled, the scales appressed, none broadly spatulated or erected; femora pale beneath; tarsi with white rings at the bases of the joints, becoming smaller outwardly, the fifth joint not ringed. Wings

smoky hyaline, the costal half distinctly infuscated; scales ligulate, brown.

Types, No. 21717, U. S. Nat. Mus., three females, Brownsville, Texas, August 28, 1916 (M. M. High). A single male is too much rubbed to be certain of the association. *P. ciliata* occurs also at Brownsville. It is recorded in the monograph<sup>1</sup> but, although the particular specimen has disappeared from the collection, I have another, taken by Mr. M. M. High.

### *Psorophora (Janthinosoma) texanum* Dyar & Knab.

Many specimens were collected by Mr. M. M. High in Brownsville, Texas, including a number of males. The genitalia do not differ from those of *toltecum*, as figured in the monograph<sup>1</sup> (vol. II, plate 22, fig. 155, 1912). The male genitalia were not previously observed (Monograph, vol. IV, p. 529, 1917), and are accordingly made known, although not showing special diagnostic characters.

### *Aedes (Ochlerotatus) eucephalæus*, new species.

Head clothed with silvery white scales, only a small patch of black ones on each side; mesonotum with dark bronzy brown scales, a narrow stripe of silvery ones from the anterior edge to antescutellar space. Abdomen black above, with large lateral segmental basal silvery white spots, the venter white with traces of apical dark bands. Legs black, the femora pale beneath.

Close to *serratus* Theobald, but much smaller and with more white on the head.

Male genitalia. Side-pieces conical, about three times as long as wide, the clasp-filament long with long terminal spine; apical lobe minute, nude; basal lobe with a spine detached on one side, the head rounded-capitate with many short curved setæ. Harpes small, concave, with curved tips. Harpagones with moderately long slender stem, the filament short, small, sickle-shaped. Unci small, revolute, conical. Basal appendages with four spines.

<sup>1</sup> Howard, Dyar & Knab, Mosq. of North & Cent. Am. & W. I., 1912-1917.



The larva falls with *serratus*, but has less teeth in the lateral comb of the eighth segment, namely about seven instead of the ten or more in *serratus*. The anal gills are large and conspicuously tracheate.

Types, No. 21911, U. S. Nat. Mus., three males and two females, bred from larvæ lying on their backs on the bottom of temporary rainpools in sandy land, Surinam, March 12 to 20, 1918 (Mrs. J. Bonne-Wepster).

***Aedes (Ochlerotatus) nubilus* Theobald.**

*Culex nubilus* Theobald, Mon. Culic., iii, 208, 1903. (♀)

*Aedes polyagrus* Dyar, Ins. Ins. Mens., vi, 77, note, 1918. (♂)

Mrs. Bonne-Wepster sends bred specimens from identical larvæ, the males with a silvery median mesonotal stripe, the females entirely without this marked ornamentation. The species is therefore sexually dimorphic.

***Aedes (Ochlerotatus) camposanus*, new species.**

Female. Proboscis black-scaled. Occiput with flat white scales, the erect forked scales on the nape brown, and giving a brown shade to the posterior portion of the head. Mesonotum with silvery white scales in a broad patch over the anterior two-thirds, the anterior margin and posterior third golden brown; a yellow streak before the antescutellar space. Rarely this white patch is golden yellow. Abdomen black above, with lateral triangular basal segmental silvery white spots; venter white with traces of apical segmental black bands. In some specimens there are basal median white spots dorsally, which form a continuous line on the last three segments. Femora white, their tips black; tibiæ black with a broad white line on the under side, not reaching base or apex, most distinct on the hind pair; tarsi black, with a white reflection below, most distinct on the first joint. Claws toothed. Wing-scales wholly dark.

Male. Coloration as in the female. Genitalia with the side-pieces long and slender, about four times as long as wide, conical; apical lobe rather small, nude; basal lobe small, rounded with few short hairs, a very stout spine on its margin.

Harpagones nearly half as long as the side-piece, the apical filament long, slenderly sickle-shaped or a little expanded in the middle. Harpes concave with revolute margins. Unci conical. Basal appendages short and stout, with four setæ on the tip and one at the side. Clasp filament simple with long terminal spine.

Types, male and female, No. 21916, U. S. Nat. Mus. Also 52 other specimens, Guayaquil, Ecuador (F. Campos R.).

Allied to *A. scapularis* Rondani, but the male genitalia without a retrose spine on the filament of the harpago.

Named in honor of the collector, Prof. F. Campos Ribadeneira.

***Aedes* (*Taeniorhynchus*?) *thelcter*, new species.**

Head and mesonotum with dense narrow curved golden yellow scales. Abdomen black, with median segmental patches of yellowish white scales, forming large triangular basal spots, on the first segment almost reaching apex; similarly colored lateral patches, larger, leaving only a small space at apices of segments black; venter entirely pale yellowish scaled. Wing scales black, narrow. Legs, femora pale below, tibiæ brownish, tarsi black. Claws toothed.

Type, No. 21718, U. S. Nat. Mus., female, Brownsville, Texas, August 29, 1916 (M. M. High). Thirty-two other females are before me from the same collector, but all in poor condition. If this species belongs in the subgenus *Taeniorhynchus*, as surmised, the larvæ may be found in rock-holes along the river; but the species may belong in *Ochlerotatus*. In the absence of a male, I do not feel certain.